

BILL OF MATERIALS		
ITEM	UNIT	QTY
PAD MOUNTED CONTROLLER & CABINET	EACH	1
TRAFFIC SIGNAL HEAD (SEE CHART A) W/ MOUNTING HARDWARE	EACH	14
PEDESTRIAN SIGNAL HEAD (16" COMB.) W/ MOUNTING HARDWARE	EACH	8
TRAFFIC SIGNAL POLE (SEE CHART B) STEEL	EACH	4
CONCRETE CONTROLLER PAD	EACH	1
CONCRETE FOOTING - POLE	EACH	4
CONDUIT ELBOW 90°	EACH	As Req'd
CONDUIT ELBOW 90° 3"	EACH	As Req'd
BACK PLATE 5" - 3 SECTION	EACH	6
BACK PLATE 5" - 5 SECTION	EACH	4
TRAFFIC MANHOLE	EACH	4
GROUND ROD & CLAMP	EACH	6
CONDUIT CLAMP	EACH	As Req'd
TRAFFIC SIGNAL LAMP RED LED KIT	EACH	14
TRAFFIC SIGNAL LAMP YELLOW LED KIT	EACH	14
TRAFFIC SIGNAL LAMP GREEN LED KIT	EACH	14
TRAFFIC SIGNAL LAMP GREEN ARROW LED KIT	EACH	4
TRAFFIC SIGNAL LAMP YELLOW ARROW LED KIT	EACH	4
TRAFFIC SIGNAL LAMP LED (16" COMBINATION)	EACH	8
CLASS 4 - WOOD POLE	EACH	0
ENTRANCE HEAD	EACH	1
CIRCUIT BREAKER & BOX	EACH	1
GUY WIRE GUARD	EACH	As Req'd
GUY WIRE CLAMP	EACH	As Req'd
THIMBLE EYE ANCHOR ROD	EACH	As Req'd
PEDESTRIAN PUSHBUTTON W/SIGN	EACH	8
POLARA AUDIBLE PEDESTRIAN SIGNALS (APS)	EACH	8
LEAD-IN WIRE No. 4 A.W.G. 1/C (TYPE THNN)	LIN. FT.	--
STANDARD 1/C #8 (GROUND)	LIN. FT.	X
MULTI-CONDUCTOR CABLE No. 16 A.W.G. 3/C (V3)	LIN. FT.	X
MULTI-CONDUCTOR CABLE No. 14 A.W.G. 7/C	LIN. FT.	X
VIDEO CABLE 75 OHM COAXIAL (BELDON 8281) (CX)	LIN. FT.	X
CONDUIT 2" RGC - WESTAR	LIN. FT.	--
CONDUIT 1.5" RGC	LIN. FT.	X
CONDUIT 2" RGC	LIN. FT.	X
CONDUIT 3" RGC	LIN. FT.	X
CAMERA HOUSING	EACH	4
VIDEO DETECTION CAMERA & MOUNTING HARDWARE (RISER BRACKET)	EACH	4
VIDEO MONITOR	EACH	1
TETHER WIRE 1/4" ASTM A475 SIEMENS-MARTIN GRADE MIN.	LIN. FT.	As Req'd
STREET NAME SIGNS W/MOUNTING HARDWARE (D3-1)	EACH	4
LEFT TURN YIELD ON GREEN W/MOUNTING HARDWARE (R10-12)	EACH	4

CHART 'A' - SIGNAL INVENTORY				
NO. WAYS	NO. SECTIONS (Per Face)	SIGNAL FACE ARRANGEMENT	MOUNTING TYPE (See Details, Next Sheet)	QTY
1	3	A	Type I	6
1	5	I	Type I	4
1	3	A	Type III	4
1	1	K (SYMB)	Type II	8

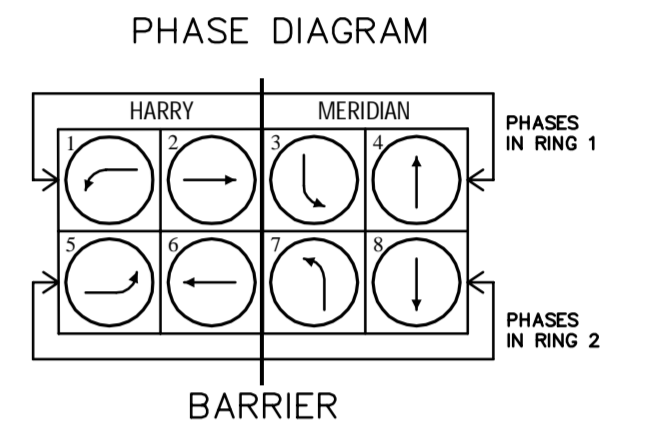
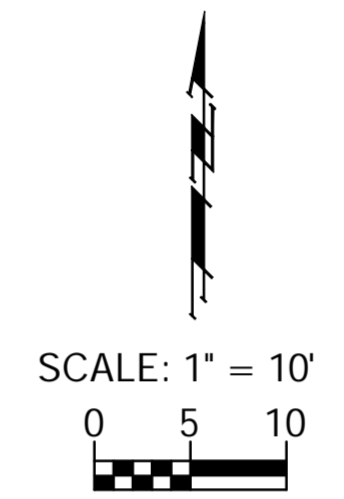
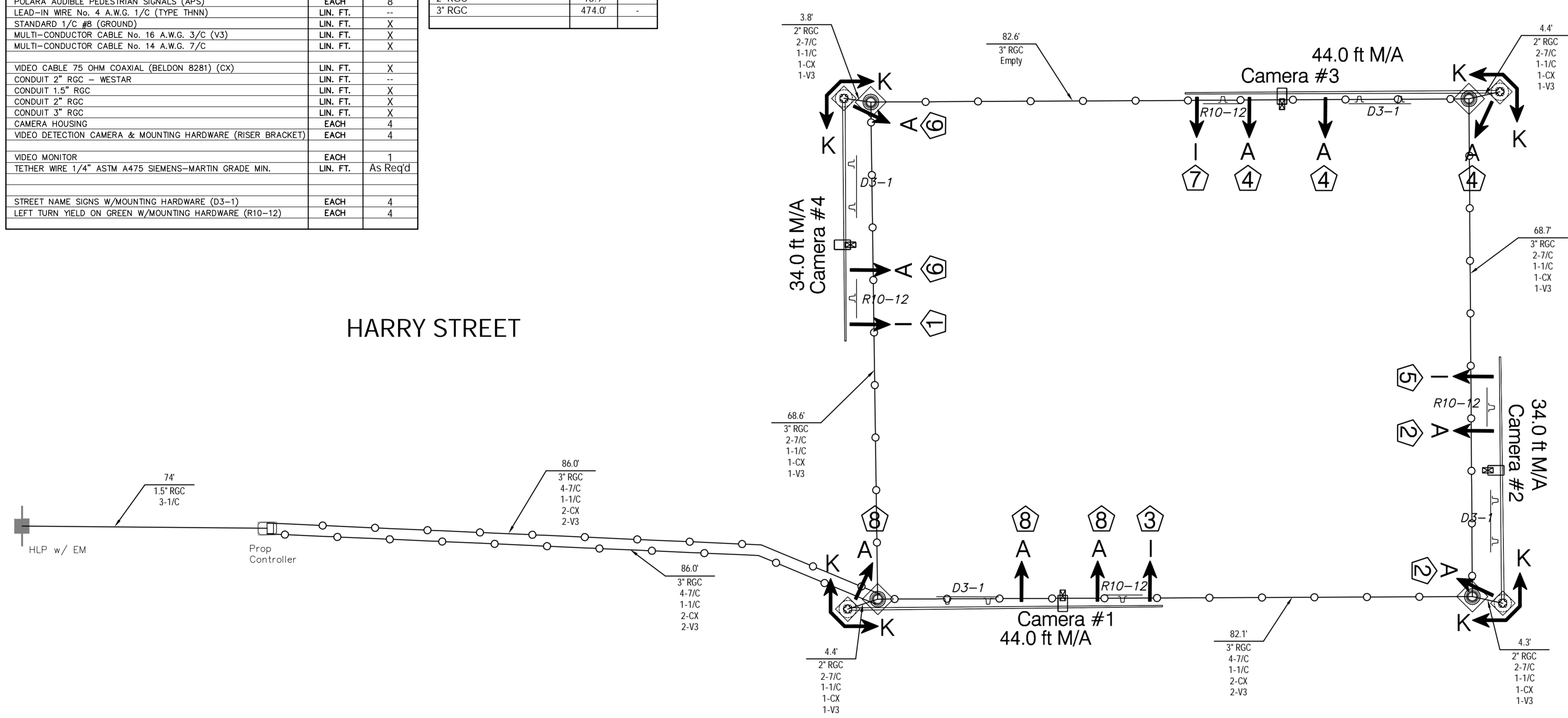
CHART 'B' - TRAFFIC SIGNAL POLES						
STATION	DIST.	SIDE	ARM LENGTH	NO. OF SIGNALS ON ARM	SIGNAL SPACING	TYPE
Sta. 62+60.19	45.26'	Lt.	44.0'	3	24.00'-10.50'-7.25'	STD
Sta. 62+60.17	45.25'	Rt.	34.0'	2	23.75'-7.50'	STD
Sta. 63+30.50	45.28'	Lt.	34.0'	2	23.75'-7.50'	STD
Sta. 63+30.96	45.35'	Rt.	44.0'	3	24.00'-10.50'-7.25'	STD

CHART 'C' - CONDUIT		
CONDUIT SIZE	TRENCHED	PUSHED
2" PVC - Westar	-	-
1.5" RGC	-	74'
2" RGC	16.9'	-
3" RGC	474.0'	-

CHART 'D' - STREET NAME SIGN SUMMARY				
LEGEND	TYPE	QTY	UNITS	SIZE
Meridian	D3-1	2	EA	1.5' X 5.0'
Harry	D3-1	2	EA	1.5' X 5.0'

TRAFFIC MANHOLE SUMMARY	
STATION	DIST. - SIDE
Sta. 62+61.52	41.09' Lt.
Sta. 62+61.13	41.05' Rt.
Sta. 62+29.97	41.56' Lt.
Sta. 63+30.00	41.06' Rt.

TYPE 2070 CONTROLLER SETTINGS																			
Interval	WAPITI PROGRAM								Nominal Display										
	1	2	3	4	5	6	7	8	Time Clock		Features								
0	WB/LT	EB	SBLT	NB	E/BLT	WB	NBLT	SB	0	Year	Veh Recall	1	2	3	4	5	6	7	8
Max. 2	1	30	60	30	60	30	60	30	60	0	Month	Ped Recall							
Walk	2									2	Day/Month	Red Lock							
Fl. Dw.	3									3	Day/Week	Yel Lock							
Max. Init.	4									4	Hour	0 Permit							
Min. Green	5									5	Minute	Ped Phases							
TBR	6									6	Second	Lead Phases							
TTR	7									7		Del Entry							
	8									8		Sequential							
Passage	9									9		Start Up Yel							
Min. Gap	a									a		Overlap A							
Add Act	b									b		Overlap B							
Yellow	c									c		Overlap C							
Red Cir	d									d		Overlap D							
Red Rev	e									e		Exclusive							
Walk II	f									f		Sim Gap							



SPECIAL FINISH FOR TRAFFIC SIGNAL EQUIPMENT:
 The traffic signal controller cabinet, brackets, sign blank backs, signal backs and other exposed surfaces shall be shop painted with an aerosol lacquer cellulose ester to match the traffic signal pole color. The contractor shall submit two copies of the proposed coating system to the City for approval to application.

TRAFFIC SIGNAL POLE & PEDESTAL EXTERIOR COATING:
 In addition to being galvanized, all exterior surfaces shall be coated with a zinc rich epoxy powder to a minimum dry film thickness of 2.0 mils. The coating shall be electrostatically applied and partially cured in a gas fired convection oven by heating the steel substrate to a minimum of 250 degrees Fahrenheit.
 The powder primed surface shall be coated with an intermediate coat of polyester powder to a minimum dry film thickness of 2.0 mils. The coating shall be electrostatically applied and cured by heating the steel substrate in a convection oven to a minimum of 350 degrees and a maximum of 400 degrees Fahrenheit.
 The intermediate coat shall be top coated with one coat of high-build acrylic polyurethane enamel to a minimum dry film thickness of 2.0 mils. The coating shall be electrostatically applied and cured by heating the substrate in a convection oven to a minimum of 225 degrees Fahrenheit. The final top coating color shall be BLACK.

- GENERAL NOTES**
- Signal Timing by the City of Wichita. The Contractor shall be responsible for furnishing and installing the controller, cabinet, concrete base, and for all equipment necessary for the complete and satisfactory operation of the traffic signal, whether said equipment is specifically mentioned or not.
 - Lengths given are to the centerline of pole/box and do not include lengths for elbows and risers.
 - Signal heads, pedestrian signals, traffic signs, etc. shall include all brackets, hardware, & other incidentals necessary for installation.
 - See City of Wichita Standard Specifications for additional wiring notes.
 - Quantities are for information only.

- EQUIPMENT SPECIFICATIONS**
2070 CONTROLLER
- The 2070L controller shall have a 19" EIA rack mountable chassis (mated to the 170 cabinet).
 - 2070-1B CPU module with RJ-45 Ethernet port.
 - 2070-2A C1 field I/O module for compatibility with CalTrans style C1 connector.
 - 2070-3B 8X40 front panel with LCD display.
 - 2070-4A 10 amp power supply.
 - 2070-7A asynchronous serial communications module (RS-232).
 - Any unused slot position shall have a cover plate.
- B. Conflict Monitors:** The Conflict Monitors supplied shall be Model 2010 ECL conflict monitors.
- C. Kyland 3170 Traffic Switch & corresponding cables**
- D. Alvarion Radio - SU-A-5.8-3-BD-VL**

